

WHAT IS CLAIMED IS:

1. A process to provide fully oriented industrial yarn from low molecular weight polyester partially oriented yarn comprising the steps of: providing a bobbin of polyester POY multifilament synthetic yarn, supplying said yarn to a heater, drawing said yarn in a draw zone with a draw ratio in the range of 1.8 - 2.3 as it passes over the heater to produce a fully oriented yarn and taking up the fully oriented yarn.
2. The process of Claim 1 wherein said yarn is overfed about 1% to said draw zone.
3. The process of Claim 2 wherein said heater is operating at about a temperature of 210°C.
4. The process of Claim 3 wherein said yarn is pretensioned prior to the supply of same to the draw zone.
5. The process of Claim 2 wherein said drawn yarn is supplied to a second draw zone wherein it is relaxed.
6. The process of Claim 5 wherein heat from a heater operating at about 210°C relaxes said drawn yarn.
7. The process of fully orienting a 255/denier, 34 filament low molecular weight polyester

yarn comprising the steps of: supplying a 255 denier, 34 filament POY yarn, heating and drawing said yarn with a draw ratio of 2.093 to produce a fully oriented yarn and taking up the fully oriented yarn.

- 5 8. The process of Claim 7 wherein the heater for said yarn is operated at a temperature of about 210°C.

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APPENDIX

11. A process to provide a fully oriented single ply industrial yarn from a single ply low molecular weight polyester partially oriented yarn comprising the steps of: providing a bobbin of single ply polyester POY multifilament yarn, the single ply yarn to a heater, drawing said single ply in a draw zone in the range of 1.8 - 2.3 as it passes over the heater to produce a fully oriented, single ply yarn and supplying the fully oriented single ply yarn directly to a take-up roll without further processing.
12. The process of Claim 11 wherein said yarn is pretensioned prior to the supply of same to the draw zone.
13. The process of Claim 12 wherein said heater is operating at about a temperature of 210°C.
14. The method of Claim 13 wherein the yarn is pretensioned with a draw ratio of 1.01.
15. The process of Claim 11 wherein said drawn yarn is supplied to a second draw zone wherein it is relaxed.
16. The process of Claim 15 wherein heat from a heater operating at about 210°C relaxes said drawn yarn.
17. The process of fully orienting a 255 denier, 34 filament low molecular weight polyester yarn comprising the steps of: supplying a 255 denier, 34 filament POY yarn, heating and drawing said yarn with a draw ratio of 2.093 to produce a fully oriented yarn and taking up the fully oriented yarn.

18. The process of Claim 17 wherein the heater for said yarn is operated at a temperature of about 210°C.